

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference P035028-P0	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/JP2004/010244	International filing date (day/month/year) 12/07/2004	(Earliest) Priority Date (day/month/year) 16/07/2003
Applicant MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 2a



as suggested by the applicant.



as selected by this Authority, because the applicant failed to suggest a figure.



as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/010244

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The present invention aims to provide a semiconductor light emitting device (1) that may be firmly attached to a substrate with maintaining excellent light emitting efficiency, and a manufacturing method of the same, and a lighting apparatus and a display apparatus using the same. In order to achieve the above object, the semiconductor light emitting device (1) according to the present invention includes a luminous layer (23), a light transmission layer (10) disposed over a main surface of the luminous layer (23), and having depressions (11) on a surface facing away from the luminous layer (23), and a transmission membrane (70) disposed on the light transmission layer (10) so as to follow contours of the depressions, and light from the luminous layer (23) is irradiated so as to pass through the light transmission layer (10) and the transmission membrane (70).

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01L33/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/010449 A1 (CHIU CHIEN-CHIA ET AL) 2 August 2001 (2001-08-02)	1,2,5-7, 11, 13-19, 21,22, 24,25,29
Y	paragraph '0040! - paragraph '0048!; figures 6,7	9,10,12, 20,23, 26-28,30
A		3,4,8
X	US 6 410 348 B1 (CHEN TZER-PERNG ET AL) 25 June 2002 (2002-06-25)	1-4,11, 14-19, 21,22,24
Y		8-10,20, 23,27,28
A	column 3, line 19 - column 4, line 65; figures 3-6	5-7,12, 13,25, 26,29,30

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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

24 February 2005

Date of mailing of the international search report

07/03/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 5 162 878 A (SASAGAWA ET AL) 10 November 1992 (1992-11-10) column 4, line 61 - column 8, line 48; figures 4-7	1,2, 14-17,24 3-13, 18-23, 25-30
X A	----- EP 0 404 565 A (MITSUBISHI KASEI POLYTEC CO; MITSUBISHI KASEI CORP; MITSUBISHI KASEI C) 27 December 1990 (1990-12-27) page 3, line 16 - line 54; figure 1	1,2,14, 24 3-13, 15-23, 25-30
X A	----- US 6 495 862 B1 (OKAZAKI HARUHIKO ET AL) 17 December 2002 (2002-12-17) column 4, line 1 - column 8, line 49; figures 1-3,6	1,14,24 2-13, 15-23, 25-30
Y A Y	----- EP 0 361 602 A (PHILIPS ELECTRONICS UK LIMITED; N.V. PHILIPS' GLOEILAMPENFABRIEKEN; PH) 4 April 1990 (1990-04-04) column 3, line 25 - line 49; figure 1	8 1,24
Y A	----- PATENT ABSTRACTS OF JAPAN vol. 2000, no. 06, 22 September 2000 (2000-09-22) - & JP 2000 077713 A (SANYO ELECTRIC CO LTD; TOTTORI SANYO ELECTRIC CO LTD), 14 March 2000 (2000-03-14) abstract	12,30
Y A	----- PATENT ABSTRACTS OF JAPAN vol. 2000, no. 23, 10 February 2001 (2001-02-10) - & JP 2001 177158 A (MATSUSHITA ELECTRONICS INDUSTRY CORP), 29 June 2001 (2001-06-29) abstract	26 1,2,5-7, 14,18, 19,21, 22,25

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/010244

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